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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/851,451

05/08/2001

Jong-Kwang Kim

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EXAMINER

FLANDERS, ANDREW C

ART UNIT

PAPER NUMBER

2615

MAIL DATE

DELIVERY MODE

03/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/851,451	<b>Applicant(s)</b> KIM, JONG-KWANG	
	<b>Examiner</b> ANDREW C. FLANDERS	<b>Art Unit</b> 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1 – 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tran (U.S. Patent 6,359,987) in view of Tan (U.S. Patent 6,449,371).

Regarding **Claims 1 and 5**, Tran discloses:

An audio output control apparatus in a mobile terminal having a player for reproducing audio data into an audio signal (Fig. 1, computers can be moved from location to location and thus are mobile; additionally laptop computers are well known and are also mobile), comprising:

an ear jack (Fig. 2 element 66; including sensing circuit 64).

Tran does not explicitly disclose that the ear jack is for transferring the audio signal output from the player to one of an earphone and an external speaker.

Tran does disclose impedance detection circuitry coupled to detect whether the attached speakers are passively driven or actively driven. If they are passively driven, the amplification is increased and if they are powered, they amplification is decreased (see Fig. 4 and its description). Tran further discloses non-amplified speakers and amplified speakers (col. 7). Tran does not disclose earphones, however, Examiner takes official notice that passively driven earphones are notoriously well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to attach passively driven earphones to the computer system to enjoy sound without disturbing others.

The attachment of the actively driven speakers and passive earphones to the system of Tran further discloses:

an ear jack (fig. 2 element 66; including sensing circuit 64) for transferring the audio signal output from the player to one of an earphone (the passively driven earphones) and an external speaker (the actively driven speakers; col. 7), connected thereto, and generating one of a high and low level voltage indicating whether a connected audio output device is the earphone or the external speaker, respectively (i.e. sensing circuit 64 generates a signals which drives the SENSE signal, the output is equal to 1 if an active speaker is connected and 0 if a passive speaker is connected; col. 6 lines 55-65; these are also regarded as high and low indicating their voltages; see col. 7 as well as the voltage discussion of this signal in col. 6)

a controller (i.e. controller 44) for determining the audio output device connected to the ear jack depending on the high or low level voltage (reads the SENSE signal) and

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controlling an audio gain of the player according to the determined result (i.e. the gain is lowered for the amplified speakers and increased for the passively driven headphones depending on the SENSE signal).

Furthermore, Tran does not explicitly disclose that the computer player is an MP3 player.

Tan discloses a computer that is configured to reproduce an MP3 audio signal.

It would have been obvious to one of ordinary skill in the art to modify Tran's computer to playback MP3 audio files as taught by Tan. One would have been motivated to do so to enable Tran's computer to play commonly available music files. The MP3 format is greatly compressed and thereby results in smaller files allowing music to be stored on the Tran system in much less space.

Regarding **Claim 2**, in addition to the elements stated above regarding claim 1, the combination further discloses:

wherein the ear jack has at least two nodes for sensing connection to either the earphone or the external speaker (col. 8 lines 7 – 9).

Regarding **Claims 3 and 6**, in addition to the elements stated above regarding claims 2 and 5, the combination further discloses:

wherein the controller increases the audio gain when the external speaker is connected to the ear jack, and the controller decreases the audio gain when the

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earphone is connected to the ear jack (i.e. the gain is lowered for the amplified speakers and increased for the passively driven headphones; Fig. 4 and col. 7).

Regarding **Claim 4**, in addition to the elements stated above regarding claim 2, the combination further discloses:

wherein the earphone includes a first ear jack connector connected to the ear jack for generating the first voltage, and the external speaker includes a second ear jack connector connected to the ear jack for generating the second voltage (the earphone and amplified speakers must have connectors to connect to the Tran system; these connectors are unique to each device and thus meet the first and second connectors, the amplified speakers generating one voltage, the non amplified headphones generating another on the SENSE line).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW C. FLANDERS whose telephone number is (571)272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7546. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

acf

/Sinh N Tran/  
Supervisory Patent Examiner, Art Unit 2615